

RIT

**Plate Identification of
Great Britain Penny Red
by Deep Computer Scanning**

By Larry Rausch

Penny Black
1840



Penny Red(star)
1841



Penny Red 4 corner
1864-1880

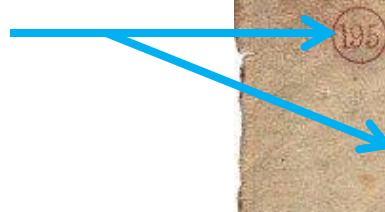




1d Four Corner Red
1864 to 1880

12 Columns A to L

Plate Number 195



20 Rows A to T



12 Column A to L
20 Rows A to T

$12 \times 20 = 240$ Different stamps per sheet

151 Different plate numbers

$240 \times 151 = 36240$ different stamps



unk 072 CJ

30,000 Digital Images provided

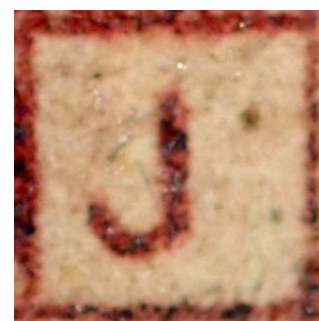
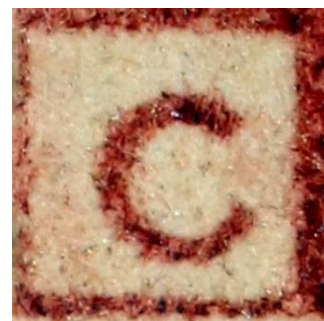
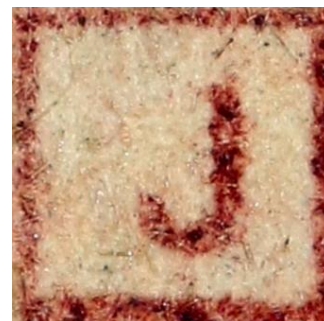
Research Goal

Identify Plate Number





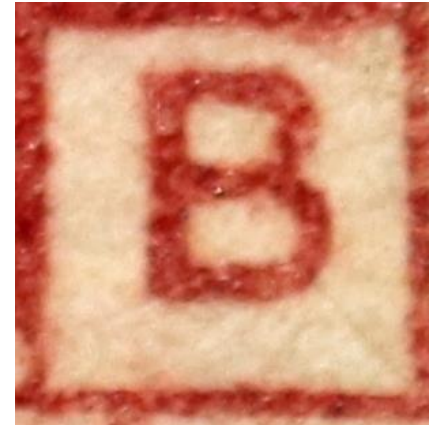
unk 072 CJ



Location of corner letters
can identify plate number



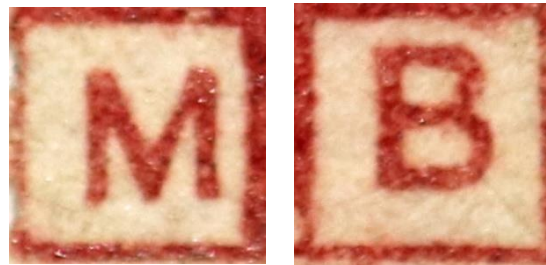
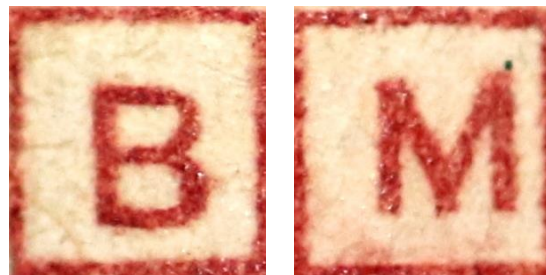
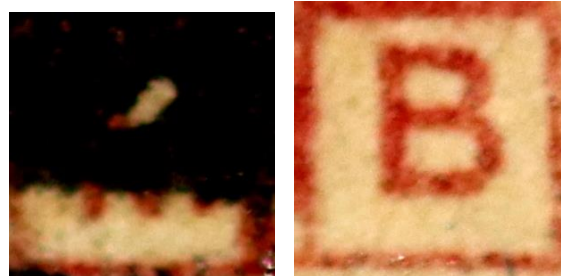
unk 078 MB



Location of corner letters
can identify plate number



091 078 MB



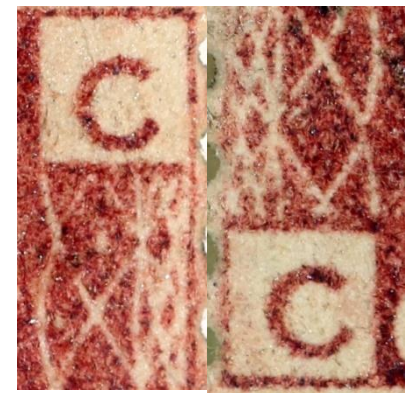
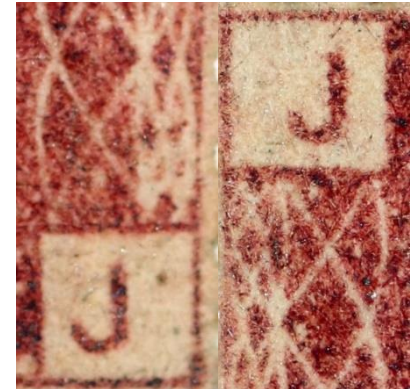
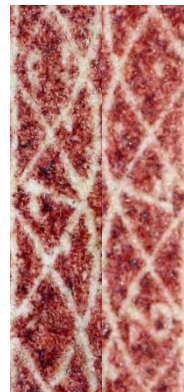
Reference 078 MB



unk 072 CJ

Three Scanning Areas

Resolution: 224x224 each



Testing

30,000 Plate ID digital photos

21,000 Scanned

9,000 tested against scans

Result First Test

151 Plates: 88.9 % Accuracy

8001 out of 9000

**"That's
all
folks!"**

